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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/531,500	08/22/2006	Jin-Woo Hong	AB-1423 US	8126
32605	7590	12/03/2010	EXAMINER	
Haynes and Boone, LLP IP Section 2323 Victory Avenue SUITE 700 Dallas, TX 75219			KIM, HEE-YONG	
			ART UNIT	PAPER NUMBER
			2482	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/531,500

**Applicant(s)**

HONG ET AL.

**Examiner**

HEE-YONG KIM

**Art Unit**

2482

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on 13 October 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4 and 18-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 18-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/GS/US)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Response to Amendment***

1. This office action is in reply to Applicant's Response dated October 13, 2010.
2. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.
3. **No Claims** have been amended.
4. **Claims 1-4, and 18-22** are pending.

***Response to Argument***

5. Rejections of **claims 1-4, and 18-22** under 35 U.S.C. 112, first paragraph are withdrawn because modalities of input and output are different and first modalities are considered as input modalities.
6. Applicant's arguments with respect to claims 1-4, 18-22 have been fully considered but they are not persuasive.

Regarding independent **claim 18**, Applicant argues (pp.6-8) that Surve and Fink does not teach a plurality such that for each object of any first modalities, the object is adapted in accordance with the first modality's presentation priority to obtain an adapted object whose modality is unchanged and Fink is directed to modality conversion. Examiner respectfully disagrees. The modality conversion is just one of Fink 's implementation. Fink discloses adaptation of object with the first modality's presentation priority without changing modality (map for the visually impaired contains textual description of all important location, pp.13-14). So, Fink teaches the priority of text

modality over image modality, selecting textual modality among different modalities without changing modality. The adaptation and enhancement of the textual modality is done by Carro's screen magnification, in order to improve the vision of the visually impaired (col.2, line 13-16).

7. . Applicant further argues that Carro's image magnification is not based on a modality but applies to across multiple modalities (pp.7, reason 1). Examiner agrees with Applicant. However, since the presentation priority and selection of text modality over image modality is done by Fink, the combination of Fink and Carro enhances text modality. Applicant further argues (pp.7-8, reason 2) that the combination of references does not provide the applicant invention. Examiner disagrees. As explained above, the combination of references teaches the applicant's invention.

8. Regarding other claims, applicant argues that claim 20 has similar features as claim 18 and the remaining claims are dependent on either of two independent claims and therefore they should be allowed. Since examiner maintains the previous rejection, the argument is groundless.

### ***Specification***

9. The amendment to the specification mailed on October 13 is accepted.

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. **Claims 1-4, and 18-22** are rejected under 35 U.S.C. 103(a) as being unpatentable over Surve (US patent 6,591,008) in view of Fink (New Review of Hypermedia and Multimedia, vol.4, issue 1, 1998) and further in view of Carro (US 7,316,566), hereafter referenced as Surve and Fink and Carro respectively.

Regarding **claim 18**, Surve discloses Methods and Apparatus for Displaying Pictorial Images to Individuals Who have Impaired Color and/or Spatial Vision. Specifically Surve discloses A method for adapting presentation contents to a user's perceptibility impairment *contents* (Fig.1 Method for Displaying a Digital Color to a Visually Impaired Person) comprising a low-vision impairment symptom (vision impairment, col.1, line 9-12), the method comprising:

obtaining, by a system, information on the user's perceptibility impairment (vision impairment, col.1, line 9-12). However, Surve fails to disclose the information specifying a presentation priority for each modality of a plurality of first modalities, at least one of the first modalities being a visual modality;

obtaining, by the system, contents to be presented to the user, wherein the contents comprise objects of different modalities which comprise the visual modality;  
adapting, by the system, the contents according to the information and thus obtaining adapted contents, wherein the contents comprise objects of first modalities one of which is said visual modality, and adapting the contents comprises, for each object of any first modality, adapting the object in accordance with the first modality's presentation priority to obtain an adapted object whose modality is unchanged but whose presentation quality is enhanced or not in accordance with the first modality's presentation priority;  
and providing the adapted contents to a presentation device for presenting the adapted contents to the user.

In the analogous field of endeavor, Fink discloses Adaptable and Adaptive Information Provision for All Users, Including Disabled and Elderly People. Specifically Fink discloses the information specifying a presentation priority for each modality of a plurality of first modalities (preference for certain information modalities, pp.6, line 1-3), at least one of the first modalities being a visual modality ( e.g. graphics, video, pp.6, line 3) ;

obtaining, by the system, contents to be presented to the user, wherein the contents comprise objects of different modalities (text, images, videos, pp.4, line 8-9) which comprise the visual modality, in order to provide user-oriented adaptivity (pp.5, last 3 lines).

Therefore, given this teaching, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Surve by specially providing information

specifying a presentation priority for each modality of a plurality of first modalities, at least one of the first modalities being a visual modality; obtaining, by the system, contents to be presented to the user, wherein the contents comprise objects of different modalities which comprise the visual modality, in order to accommodate adaptation at the client.

However, Surve and Fink still fail to disclose adapting, by the system, the contents according to the information and thus obtaining adapted contents, wherein the contents comprise objects (text, images, videos, pp.4, line 8-9) of first modalities one of which is said visual modality, and adapting the contents comprises, for each object of any first modality, adapting the object in accordance with the first modality's presentation priority to obtain an adapted object whose modality is unchanged whose presentation quality is enhanced or not in accordance with the first modality's presentation priority; and providing the adapted contents to a presentation device for presenting the adapted contents to the user.

Fink further teaches the first modality's presentation priority (examiner read as textual modality over image modality in priority) and selecting text modality over image modality among different input modalities (map for the visually impaired contains textual description of all important location, pp.13-14). In the analogous field of endeavor, Carro discloses Method for Accessing Interactive Multimedia Information or Services from Braille Documents. Carro specifically discloses adapting the visual contents by enhancing (magnifying) text and images (col.2, line 13-16), in order to improve the vision of the visually impaired (col.2, line 13-16).

Therefore, given this teaching, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Surve and Fink by specially providing adapting the visual content for the low-vision user according to the presentation priority (priority of textual modality over image modality) by magnifying textual modality without change of modality, in order to improve the vision of the visually impaired. The Surve method, incorporating the Fink specifying and obtaining a presentation priority for each modality, further incorporating the Carro adapting the visual content for the low-vision user to enhance the visual content according to the presentation priority and providing adaptive contents by magnifying the text and images, has all the features of claim 18.

Regarding **claim 1**, Surve and Fink and Carro disclose everything claimed as applied above (see claim 18). In addition, Surve discloses *further comprising displaying the adapted visual contents* (Adaptation by Adjustment Section 50, 60, and 70, Fig.1) *by the presentation device* (Display Screen 90, Fig.1).

Regarding **claim 2**, Surve and Fink and Carro disclose everything claimed as applied above (see claim 18). Surve further discloses *wherein the information about the user's perceptibility impairment includes at least one of information indicating whether or not left or right eyes of the user are blind, left and right visions of the user, and the kind of the low-vision impairment symptom* (impaired color, spatial discrimination, Column 2, line 58).



Regarding **claim 3**, Surve and Fink and Carro disclose everything claimed as applied above (see claim 18). Surve further discloses *wherein the information about the user's perceptibility impairment includes a numerical descriptor (numerical value) that describes a degree of the user's low-vision impairment symptom (gain factor for color content adjustment, contrast adjustment and spatial adjustment, Column 3, line 1- 8).*

Regarding **claim 4**, Surve and Fink and Carro discloses everything claimed as applied above (see claim 18). Surve further discloses *wherein the information about the user's perceptibility impairment includes at least one selected from the group consisting of a degree of "loss of fine detail", a degree of "lack of contrast" (contrast parameter, Column 4, line 3-15, and figure 4), a degree of "light sensitivity", a degree of "need of light", a degree of "loss of peripheral vision field", a degree of "loss of central vision field" and a degree of "loss of half field of vision".*

Regarding **claim 19**, the Surve method, incorporating the Fink specifying and obtaining a presentation priority for each modality, further incorporating the Carro adapting the visual content for the low-vision user to enhance the visual content according to the presentation priority and providing adaptive contents by magnifying the text and images, as applied to claim 18, discloses wherein for at least one first modality the adapted object's presentation quality is enhanced (Carro: magnify text and images for low-vision user, col.2, line 13-16).

Regarding **claim 20**, the claimed invention is a system claim corresponding to the method claim 18. Therefore, it is rejected for the same reason as claim 18.

Regarding **claim 21**, the Surve method, incorporating the Fink specifying and obtaining a presentation priority for each modality, further incorporating the Carro adapting the visual content for the low-vision user to enhance the visual content according to the presentation priority and providing adaptive contents by magnifying the text and images, teaches wherein the unit for receiving the contents is for receiving the contents over a wired or wireless network (Fink: network-wide user modeling service, pp.8, line 6 from bottom).

Regarding **claim 22**, the claimed invention is a system claim corresponding to the method claim 1. Therefore, it is rejected for the same reason as claim 1.

### ***Conclusion***

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HEE-YONG KIM whose telephone number is (571)270-3669. The examiner can normally be reached on Monday-Thursday, 8:00am-5pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on 571-272-7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/HEE-YONG KIM/  
Examiner, Art Unit 4192

/Andy S. Rao/  
Primary Examiner, Art Unit 2482  
December 1, 2010